



## PROJECT PROGRESS REPORT

**PREPARED FOR THE ALASKA ENERGY AUTHORITY BY  
THE ALASKA CENTER FOR ENERGY AND POWER**

**PROJECT TITLE:** *Rounds 1 & 2: Emerging Energy Technology Fund – Data*

**REPORTING PERIOD:** 2<sup>nd</sup> Quarter 2018

**DATE OF REPORT:** July 26, 2018

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## ***EETF Round 1 Projects***

### *Ongoing Projects:*

Project #037- Oceana, Hydrokinetics; Project #043 – Ocean Renewable Power Corporation (ORPC), Hydrokinetics; Project #058 – Boschma Research Inc. (BRI), Hydrokinetics

These projects have reached completion, with the exception of ongoing work with Oceana in the ACEP Power Systems Integration Laboratory. ACEP will complete its final report after all work with Oceana is finished.

### *Draft Reports Attached:*

Project #003 – Alaska Division of Forestry, Biomass Reforestation  
Northwest Arctic Borough, Arctic Field Testing and Power Curve Verification of Eocycle 25 kW Wind  
Turbine

### *Final Reports in Progress:*

Project #009 – Genesis – Ultra-Efficient Generators and Diesel-Electric Propulsion  
Project #026 – Cold Climate Housing Research Center (CCHRC), Ground Source Heat Pump (GSHP)  
Project #028 – University of Alaska Fairbanks (UAF), Organic Rankine Cycle (ORC)  
Project #035 – Altaeros, Airborne Wind Turbine

### *Completed Projects and Reports:*

Project #006 – Arctic Sun, Arctic Thermal Shutters and Doors  
Project #029 – University of Alaska Fairbanks, Exhaust Thimble  
Project #045 – Hatch, Flywheel  
Project #049 – Intelligent Energy Systems (IES), Self-Regulated Grid  
Project #051 – Intelligent Energy Systems (IES), Wind-Diesel-Battery Hybrid System  
Project #061 – Marsh Creek, Various Speed Diesel-Electric Generation

## ***EETF Round 2 Projects***

### *Ongoing Projects:*

Multi-Stage Energy Storage System, Chugach Electric Association

ACEP has established data collection protocols with Chugach Electric. Analysis will be conducted once data collection is complete, with the period of performance for Chugach noted to be through December of 2018.

### *Completed Projects:*

Air Source Heat Pumps, CCHRC  
Trans-Critical CO<sub>2</sub> Heat Pump, Alaska Sea Life Center  
St. Paul Flywheel Demonstration, TDX